

Product Characterization Sheet

031-222

Rat Hepatocytes, Catalog Number 82016



Classification

| | |
|--------------------------|------------|
| Plateability | Suspension |
| Number of days plateable | NA |
| Confluency | NA |
| P450 Inducibility | NA |
| Number of donors | 6 |

Donor Demographics

| | |
|---------------------|----------------|
| Gender | Male |
| Strain | Sprague Dawley |
| Age | 7-10 weeks |
| Weight | 200-250 g |
| Infectious diseases | Negative |

Post-thaw Viability and Yield

| | |
|-----------|-------------|
| Viability | 89 % |
| Yield | 3.5 million |

Characterization: Hepatocytes were thawed using 37°C UCRM™ and centrifuged for 5 minutes at 100g. After removing the supernatant, hepatocytes were re-suspended in HQM™ and counted for viability and yield using the Trypan Blue exclusion method.

Drug Metabolism Activity

| Drug Metabolizing Enzyme | Substrate (μM) | Incubation Time (minutes) | Metabolite Quantified | Activity (pmol/minute/million cells) |
|--------------------------|-------------------------|---------------------------|-------------------------------|--------------------------------------|
| ECOD | 7-Ethoxycoumarin (100) | 30 | 7-Hydroxycoumarin | 202.22 +/- 11.77 |
| UGT | 7-Hydroxycoumarin (100) | 30 | 7-Hydroxycoumarin glucuronide | 351.50 +/- 39.28 |
| Sulfotransferase | 7-Hydroxycoumarin (100) | 30 | 7-Hydroxycoumarin sulfate | 17.79 +/- 2.72 |

CYP450 Activity Assessment: The hepatocytes were incubated at a cell density of 0.5 million cells/mL in a 12-well plate (500,000 hepatocytes/well) for the designated time durations with isoform-selective substrates. The metabolites were identified and analyzed using LC-MS/MS.

IVAL cell culture media and tissue culture plates used in this evaluation:

- Recovery of thawed hepatocytes - Cat. No. 81015 - UCRM™ Universal Cryopreservation Recovery Media, 50 mL tube
- Suspension and incubation of hepatocytes - Cat. No. 81039/81040 - HQM™ Hepatocyte Incubation Media, 50 mL tube/500 mL bottle

To inquire about our products and services or for technical questions please contact:

- In Vitro ADMET Laboratories by phone at +1 (866) 458-1094 or +1 (410) 869-9037 or email at info@invitroadmet.com